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UNIT 4 Practice Test

Solve each equation. Check and circle your answer.

$4x + 9 = 19$

$-9 \quad -9$

$\frac{4x}{4} = \frac{28}{4}$

$\boxed{x = 7}$

$-3x + 4 = -20$

$-4 \quad -4$

$\frac{-3x}{-3} = \frac{-24}{-3}$

$\boxed{x = 8}$

$7y + 5 - 3y = -31$

$4y + 5 = -31$

$-5 \quad -5$

$\frac{4y}{4} = \frac{-36}{4}$

$\boxed{y = -9}$

$2x + 7 = 24$

$-7 \quad -7$

$\frac{2x}{2} = \frac{17}{2}$

$\boxed{x = 8\frac{1}{2}}$

$8(t + 7) = 32 + 2t$

$8t + 56 = 32 + 2t$

$-32 \quad -32$

$8t + 24 = 2t$

$-8t \quad -8t$

$\frac{24}{-6} = \frac{-6t}{-6}$

$\boxed{-4 = t}$

$x - (4 - x) = 0$

$x - 4 + x = 0$

$2x - 4 = 0$

$+4 \quad +4$

$\frac{2x}{2} = \frac{4}{2}$

$\boxed{x = 2}$

$6(w - 5) - 3w = w + 10$

$6w - 30 - 3w = w + 10$

$3w - 30 = w + 10$

$-w \quad -w$

$2w - 30 = 10$

$+30 \quad +30$

$\frac{2w}{2} = \frac{40}{2}$

$\boxed{w = 20}$

$3(5x - 2) - 5x = 12x + 6$

$15x - 6 - 5x = 12x + 6$

$10x - 6 = 12x + 6$

$+6 \quad +6$

$10x = 12x + 12$

$-12x \quad -12x$

$\frac{-2x}{-2} = \frac{12}{-2}$

$\boxed{x = -6}$

$3(2t-6)=2(3t-9)$

$6t-18=6t-18$

identity

$5p-14=5p+4$

$-5p \quad -5p$

$-14 \neq 4$

no solution

$3(5x-2)-6x=3(3x+2)$

$15x-6-6x=9x+6$

$9x-6=9x+6$

$-9x \quad -9x$

$-6 \neq 6$

no solution

$-(3-10y)=12$

$-3+10y=12$

$+3 \quad +3$

$\frac{10y}{10}=\frac{15}{10}$

$y=1.5$

$2(t+5)=9$

$2t+10=9$

$-10 \quad -10$

$\frac{2t}{2}=\frac{-1}{2}$

$t=-\frac{1}{2}$

$-x+7x=24$

$\frac{6x}{6}=\frac{24}{6}$

$x=4$

$-3(x-5)=66$

$-3x+15=66$

$-15 \quad -15$

$\frac{-3x}{-3}=\frac{51}{-3}$

$x=-17$

$4n=2(n+1)+3(n-1)$

$4n=2n+2+3n-3$

$4n=5n-1$

$-5n \quad -5n$

$\frac{-n}{-1}=\frac{-1}{-1}$

$n=1$

Write an equation to model each situation. Solve your equation.

The width of a rectangle is 6cm less than the length. The perimeter is 72cm. Find the dimensions of the rectangle.

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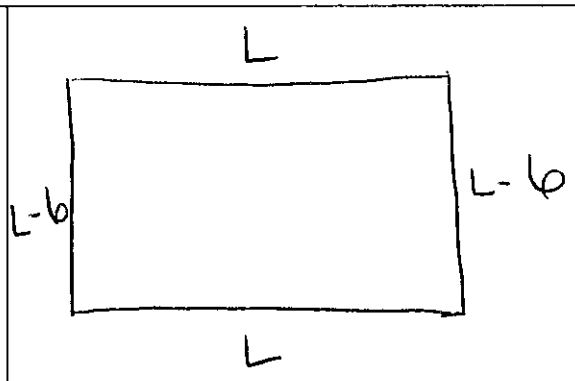
$w = L - 6$ $P = 72$	w = width L = length



$72 = 4L - 12$
$+12 \quad +12$
$84 = 4L$
$\frac{84}{4} = \frac{4L}{4}$
$21 = L$

The length is 21 cm and the width is 15cm.

A hairdresser is considering ordering a certain shampoo. Company A charges $4 per bottle plus a $10 handling fee per order. Company B charges $3 per bottle plus a $25 handling fee per order. How many bottles must the hairdresser buy to justify using company B?

b = number of bottles

Company A: $4b + 10$
Company B: $3b + 25$

$4b + 10 = 3b + 25$
$-3b \quad -3b$
$b + 10 = 25$
$-10 \quad -10$
$b = 15$

Equation: $4b + 10 = 3b + 25$ Solution: 15 bottles

Tickets to the county fair for four adults and five children cost $33. An adult's ticket costs $1.50 more than a child's ticket. Find the cost of one adult ticket.

C = child's ticket

$$33 = 5c + 4(1.50 + c)$$
$$33 = 5c + 6 + 4c$$
$$33 = 9c + 6$$
$$-6 \quad -6$$
$$\frac{27}{9} = \frac{9c}{9}$$
$$\boxed{3 = c}$$

Equation: $33 = 5c + 4(1.50 + c)$ Solution: $4.50 for one adult ticket